PR13: EC4T COST RECONCILIATION – CLARIFICATION NOTE

1.   Summary

This note seeks to clarify a few aspects of the note "PR13: Consultation on EC4T cost reconciliation – Network Rail note"[1] which was issued as part of ORR's October 2013 consultation on implementing the EC4T cost reconciliation[2]. The original note conflated the two separate stages of the cost wash-up whereby we:

1. Make corrections for incorrect pence per kWh rates that apply in billing; and

2. Allocate any discrepancies in the amount we have billed to users of EC4T and are billed for in relation to energy costs.

This note clarifies that these two stages should be undertaken **separately**, and in the order set out below.

2.   Introduction

In response to further review of the note "PR13: Consultation on EC4T cost reconciliation – Network Rail note", it has become clear that some aspects of it are not as well articulated as they could have been. The cost wash-up is complex and it is partly because of this complexity that some of the drafting is somewhat unclear. It is, however, important that in transposing ORR's Final Determination into contractual wording, there is a shared understanding across the industry of the process. For this reason, this note seeks to clarify the areas of ambiguity in that note.

As part of this note, it was stated that

*"'**Energy**' tariffs which recover the commodity cost incurred by Network Rail in respect of traction electricity, electricity industry network losses and other 'energy' based costs for each train operator. Those that currently apply are set out in Annex B. These have the shared characteristic that they are charged on a national basis at a pence per kWh rate"*

We recognise that this paragraph may be somewhat confusing, since it conflates two separate stages of the year-end cost reconciliation process – the correction for incorrect pence per kWh rates at the level of individual operators (e.g. due to incorrect kWh rates used in billing for specific train operators, or incorrect kWh rates for nationwide issues such as the hydro levy which may only be finalised at the year-end) and the cost wash-up itself. For the avoidance of confusion we set out the complete year-end wash-up process proposed for CP5, below.

We hope that this note is helpful. If colleagues have any questions regarding this note please contact Peter Swattridge at Network Rail (peter.swattridge@networkrail.co.uk).

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[1] Available at: http://www.rail-reg.gov.uk/pr13/PDF/ec4t-cost-reconciliation-nr-note.pdf

[2] Available at: http://www.rail-reg.gov.uk/pr13/PDF/ec4t-cost-reconciliation.pdf

3. Steps involved for EC4T CP5 year-end wash-up arrangements:

3.1 THE VOLUME WASH-UP

By the end of the financial year, each party will have been billed based on a certain level of kWh usage. For modelled operators this will be based on predetermined modelled rates. For metered operators this will be based on their meter readings plus an additional mark-up to represent their share of transmission losses associated with their kWh consumption. Metered operators are not included in the year-end volume wash-up because their usage of electricity is accurate. Each party's electricity bill will have been calculated by multiplying their kWh usage by their specific charge per kWh (rate in pence per kWh). Each party's pence per kWh rate could be different depending on their electricity purchasing strategy.

By the year-end, Network Rail will know how much electricity (measured in kWh) it has consumed from the industry's electricity provider (currently EDF) on behalf of EC4T users. We will also know how many units of electricity (in kWh) we have billed users of EC4T. There will tend to be a difference between these two amounts.

For example we may have been provided with 100 kWh by EDF, yet we may have billed EC4T users a total of 90 kWh for that same year. In this stylised example, 10 kWh have not been billed. The year-end volume wash-up will now allocate these 10 kWh based on the approach that ORR has determined in its Final Determination. Network Rail is exposed to the year-end volume wash-up for the EC4T electricity that it has consumed, in the same way that modelled train operators are. Network Rail is also allocated an additional exposure to the volume wash-up, which makes Network Rail responsible for a proportion of the wash-up for the transmission losses deemed to have occurred in that year. This additional exposure means that if (as in our stylised example) there are additional kWh to be shared out by the volume wash-up, Network Rail will be allocated more than the share of these that would otherwise be the case if this was done based purely on modelled operators and Network Rail's own consumption. Extending our example:

- TOC 1 is a **metered** operator and was billed 40 kWh during the year

- TOC 2 is a **modelled** operator and was billed 30 kWh during the year

- TOC 3 is a **modelled** operator and was billed 15 kWh during the year

- Network Rail was billed 5 kWh during the year for its own consumption of EC4T (for example for signalling purposes)

TOC 1 will be excluded from the year-end wash-up as its consumption is metered

Let's assume that the ORR determined transmission losses mark-up is 3%. This means that for the year, 100 kWh x 3% / (100% + 3%) of kWh is deemed to have been lost as transmission losses i.e. 2.91 kWh.

The year-end volume wash-up will operate as follows:

100 – 40 – 30 – 15 – 5 = 10 kWh have not be billed

These 10 kWh need to be allocated to the parties that are exposed to the year-end wash-up process

The mark-up factor for all parties exposed to the wash-up will be:

(Total consumption – Metered consumption - Modelled consumption - Network Rail's consumption) / (Modelled consumption + Network Rail's consumption + Network Rail's additional exposure for the transmission losses)

Applying this to our example:

(100 – 90) / (30 + 15 + 5 + 2.91) = 0.189

So the additional kWh allocated to the parties exposed to the volume wash-up are:

- TOC 1 = zero (not included in the wash-up)

- TOC 2 = 0.189 x 30 = 5.670 kWh

- TOC 3 = 0.189 x 15 = 2.835 kWh

- Network Rail = 0.189 x (5 + 2.91) = 1.495 kWh

The final kWh allocations must then be translated into financial values for billing purposes, using each party's relevant pence per kWh rate.

3.2   ADJUSTMENT TO EACH PARTY'S KWH RATES

It may be the case that some (or all) operators have been charged the wrong pence per kWh rate. An example of this is the hydro levy which may increase all operators' rates due to (for example) a change in legislation with regard to green levies, during the billing year. If this is the case, we correct for this **before** the cost wash-up[3].

IT IS THIS STEP THAT WAS CONFLATED IN OUR ORIGINAL NOTE, ALONG WITH THE ACTUAL COST WASH-UP PROCESS (see below).

3.3   THE COST WASH-UP

The cost wash-up has two components covering (1) energy costs; and (2) delivery costs.

Energy cost wash-up

The total of all parties' energy cost bills may not 'add up' to the total financial amount that Network Rail has been charged for by the energy provider in terms of energy costs. There may therefore either be an additional amount to be collected from all parties, or a refund which Network Rail must pay all parties. The amount of electricity that Network Rail was allocated in the volume wash-up for transmission losses will be included in the energy component of the cost wash-up. We allocate the discrepancies in the total energy cost at this stage, based on each party's proportion

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[3] Errors in party's pence per kWh rates are re-charged through TABS where relatively few journeys are affected. For more significant changes, manual adjustments are made to the charges in TABS in the year end wash-up process – operators will be specifically informed of this.

of the total charged financial value. This wash-up is done on a nationwide basis and includes metered and modelled services.

For example, we may be required to pay EDF £500 for energy costs, yet we have billed EC4T users £400. The year-end cost wash-up will therefore allocate the remaining £100[4] to modelled operators, metered operators and Network Rail. As with the volume wash-up, Network Rail's exposure to the cost wash-up will be proportionally higher than our share of the consumption, since we will be allocated an additional amount which reflects our ability to manage transmission losses (2.91 kWh).

- TOC 1 has been billed £200

- TOC 2 has been billed £100

- TOC 3 has been billed £70

- Network Rail has been allocated costs of £20

- Network Rail has also been allocated costs of £10, which represents the 2.91 kWh relating to transmission losses from the volume wash-up (explained in the section above)

The year-end cost wash-up will then operate as follows:

£500 - £200 - £100 - £70 - £20 - £10 = £100 has not been billed

This remaining £100 needs to be allocated to parties which are exposed to the cost wash-up (i.e. Network Rail, modelled operators and metered operators)

The mark-up factor for all parties exposed to the cost wash-up will be:

(Total £ value – Metered £ value - Modelled £ value - Network Rail £ value – Network Rail transmission losses £ value) / (Metered £ value + Modelled £ value + Network Rail £ value + Network Rail transmission losses £ value)

Applying this to our example:

(£500 - £400) / (£200 + £170 + £20 + £10) = 0.250

So the additional £ values allocated to the parties exposed to the cost wash-up are:

- TOC 1 = 0.250 x £200 = £50

- TOC 2 = 0.250 x £100 = £25

- TOC 3 = 0.250 x £70 = £17.50

- Network Rail = 0.250 x (20 + 10) = £7.50

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[4] This value is for illustrative purposes only. We do not expect that the cost wash-up will be more than 2%.

Delivery cost wash-up

The final step is to allocate any discrepancies in billed delivery costs and delivery costs that Network Rail is required to pay to the industry's energy provider. Again, the allocation of the discrepancy between actual and assumed costs is determined by each party's share of the total metered costs of delivery. This stage is performed on an ESTA-by-ESTA basis (this is explained in the original note).

4.   Corrections for formulae error

A few errors have been detected in the proposed contractual drafting. These are shown in track changes in Annex A.

The track changes also include an addition to make clear that prior to the cost wash-up the corrections to the kWh rates, as discussed above, are made. This addition states that:

> *"Prior to the calculation of $S2_{tw}$, Network Rail shall make any corrections for the charge for traction current (in pence per kWh) which, acting reasonably, it considers necessary"*

Contractualising this process is very difficult and, we now think that the contractual wording is fit-for-purpose. It is, however, possible that further small refinements, prior to the review notice (due for publication on 20 December 2013) may be necessary.

ANNEX A – PROPOSED DRAFTING

The legal drafting below sets out a revised version of the contractual drafting relating to the cost reconciliation. We propose that this drafting replaces the current paragraphs 18.1 and 18.3 of the Traction Electricity Rules.

Please note that all changes are tracked against the drafting consulted on in October 2013.
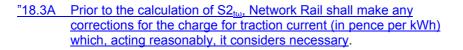
Amended drafting for paragraph 18.1 of the TER:

"Timing and scope of volume and cost reconciliation

18.1   Within 90 days after the end of Relevant Year t, Network Rail shall calculate, for each   train operator ω:

(a) supplementary amount $S1_{t\omega;}$ and

(b) (following and taking into account the calculation of $S1_{t\omega}$), supplementary amount $S2_{t\omega,}$

which shall be payable by or to the train operator in accordance with this paragraph 18. The calculations of $S1_{t\omega}$ and $S2_{t\omega}$ shall be made for all train operators using electric traction, other than Charter Train Operators."

Proposed drafting for paragraph 18.3:

"18.3A   Prior to the calculation of $S2_{t\omega}$, Network Rail shall make any corrections for the charge for traction current (in pence per kWh) which, acting reasonably, it considers necessary.

18.3   For each train operator ω, $S2_{t\omega}$ is derived from the following formula:

$$S2_{t\omega} = S2E_{t\omega} + S2D_{t\omega}$$

Comment [e1]: Subscript g has been removed.

where:

$S2E_{t\omega}$ is derived from the following formula:

$$S2E_{t\omega} = EN_{t\omega} \bullet EC_t$$

where:

$EN_{t\omega}$ means Train Operator Energy Costs payable by train operator ω in Relevant Year t; and

EC_t is a reconciliation factor, derived from the following formula:

$$EC_t = \frac{(CSE_t - CWE_t)}{CWE_t}$$

where:

CSE_t means the total Energy Costs of traction electricity consumption ~~in respect of the total amount~~ payable by Network Rail to its electricity suppliers ~~in respect of Energy Costs~~ in Relevant Year t;

CWE_t shall be derived from the following formula:

$$CWE_t = TEC_t + EN_{tmn} + ENRLOSS_t$$

> **Comment [e2]:** $NRLOSS_t$ is now $ENRLOSS_t$

where:

TEC_t means the summation of the Energy Costs of traction electricity consumption ~~in respect of all Train Operator Energy Costs~~ across all train operators in Relevant Year t;

EN_{tmn} means the summation across all Geographic Areas g, of the Energy Costs of the traction electricity consumption in Relevant Year t by (a) Network Rail, and (b) all entities whose consumption is not modelled or metered in a track access contract subject to regulation by ORR, which Energy Costs Network Rail shall assess as accurately as possible after allocation of each $S1_{t\omega}$~~in respect of L_{tmng}, as defined in paragraph 18.2 of these Traction Electricity Rules, for Relevant Year t~~; and

$ENRLOSS_t$ means the Energy Costs of the traction electricity consumption allocated to Network Rail over and above its own consumption in the calculation of $S1_{t\omega}$, in paragraph 18.2 of these Traction Electricity Rules, which Network Rail shall assess as accurately as possible, across all Geographic Areas g in Relevant Year t.

For each train operator ω, $S2D_{gt\omega}$ is derived from the following formula:

$$S2D_{t\omega} = \sum S2D_{tg\omega}$$

Summed over g

where, for each Geographic Area g, $S2D_{tg\omega}$ is derived from the following formula:

$$S2D_{tg\omega} = D_{tg\omega} \bullet DC_{tg}$$

where:

$D_{tg\omega}$ means Train Operator Delivery Costs payable by train operator ω in Geographic Area g in Relevant Year t;

DC_{tg} is a reconciliation factor, derived from the following formula:

$$DC_{tg} = \frac{\left(CSD_{tg} - CWD_{tg}\right)}{CWD_{tg}}$$

where:

CSD_{tg} means the total amount payable by Network Rail to its electricity suppliers in respect of Delivery Costs in Geographic Area g in Relevant Year t;

CWD_{tg} shall be derived from the following formula:

$$CWD_{tg} = TED_{tg} + DEN_{tmng} + DNRLOSS_{tg}$$

where:

TED_{tg} means the summation of all Train Operator Delivery Costs across all train operators in Geographic Area g and Relevant Year t;

DEN_{tmng} means the summation across all Geographic Areas g, of the Delivery Costs of the traction electricity consumption in Relevant Year t by: (a) Network Rail, and (b) all entities whose consumption is not modelled or metered in a track access contract subject to regulation by ORR, which Delivery Costs Network Rail shall assess as accurately

as possible after allocation of each $S1_{t\omega}$; and

DNRLOSS$_{tg}$ means the amount payable by Network Rail to its electricity suppliers in respect of the Delivery Costs of traction electricity consumption allocated to Network Rail in the calculation of $S1_{tg\omega}$, in paragraph 18.2 of these Traction Electricity Rules, in Geographic Area g in Relevant Year t

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Proposed drafting for paragraph 1.2 of the Traction Electricity Rules

In addition to the amendments proposed to 18.1 and 18.3 of the Traction Electricity Rules we propose to add the following definitions to paragraph 1.2 of the Traction Electricity Rules.

"Delivery Costs" means those components of the traction electricity costs in respect of which the rate charged to Network Rail varies by Geographic Area g. These include costs associated with electricity supply industry transmission and distribution;

"Energy Costs" means all traction electricity costs that are not Delivery Costs;

~~**"Network Rail Delivery Costs"** means the amount payable by Network Rail to its electricity suppliers in respect of Delivery Costs;~~

~~**"Network Rail Energy Costs"** means the amount payable by Network Rail to its electricity suppliers in respect of Energy Costs;~~

"Train Operator Energy Costs" the amount of E_t (calculated in accordance with Schedule 7 of the relevant train operator's track access contract) plus $S1_{t\omega}$ (calculated in accordance with paragraph 18.2 of these Traction Electricity Rules) payable in respect of Energy Costs;

"Train Operator Delivery Costs" the amount of E_t (calculated in accordance with Schedule 7 of the relevant train operator's track access contract) plus $S1_{tg\omega}$ (calculated in accordance with paragraph 18.2 of these Traction Electricity Rules) payable in respect of Delivery Costs;